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ABSTRACT

An attempt was made to ascertain what type of verbal interaction behavior manifested by a group given a problem in curriculum development affects the quality of the product. Thirty ad hoc groups, selected randomly, were given curriculum development tasks to solve. Curriculum Guide Form (CGF) and Bales' Interaction Process Analysis (IPA) were used to collect data about the groups' behavior. Four interaction behavior variables were selected from the data: Social-Emotional Positive, Social-Emotional Negative, Task Oriented, and Decision Making. Data indicated that the more groups showed a positive social-emotional climate, the lower the scores on the product solution. That is, groups emphasizing task oriented verbal behavior over group maintenance behavior, whether positive or negative, scored higher on their curriculum products. Recommendations are made concerning task oriented behavior, particularly in regards to curriculum development committees. As requested by the author, this paper is not offered in hard copy. (PR)

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EFFECTS OF VERBAL BEHAVIOR WITHIN CURRICULUM DEVELOPMENT COMMITTEES ON THE CURRICULUM PRODUCT*

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Broad-based participation in curriculum decisions is the trend of the times. During the course of the Twentieth Century, the American educational scene has heralded, at one time or another, a variety of personnel in varying arrangements involved in curriculum development. The pendulum of participation has swung from subject specialists at the turn of the century to community participation. A case has been made for teacher participation as the vital link with implementation, and for national curriculum development augmented by inservice session in the local arena. We have seen the return to the specialist in the 50's and early 60's and the questioning of this approach in the mid-60's.

As we enter the 1970's, urban school systems will be able to effect major curricular modifications only if there is great sensitivity to the will of the public and/or a workable mechanism for participation of the concerned community members in making these decisions. The critical question at this point is not whether these community members should be involved in curriculum development activities, but how we can assist them in making valid and effective contributions to such activities.

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Purpose of the Study

As people interact in small groups for the purpose of arriving at decisions, their verbal behavior will have differential effects on the problems they are attempting to resolve.(1) It is the purpose of this study to determine which

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of the many variables in a group's verbal interaction behavior affect the resolution of the group's problems. Translated in curriculum language, the question is what type of verbal interaction behavior manifested by a group given a problem in curriculum development affects the quality of the product, i.e., a portion of a curriculum developed by the group.

Analyzing the types of verbal interaction behavior (the independent variables) and the effects of verbal behavior on the product (the dependent variable) may indicate which behavior variables enhance attainment of the task solution and which variables impede task solutions. With this information, participants in curriculum development activities may be assisted in their understanding of their own behavior, thereby facilitating the group's arriving at a task solution.

Terminology

A group is a three-member ad hoc curriculum development committee.

The task is to write a portion of a school curriculum.

The product is the curriculum that is produced by the group. It represents the task solution.

The process is the verbal interaction behavior among the group members as they engage in the task.

Verbal interaction behavior variables have been selected from those defined by Bales in his interaction process analysis observational procedure. (2)

The Procedure

Subjects

Thirty ad hoc groups, composed of teachers, administrators and graduate students in education, were designated curriculum development committees. Each committee, consisting of three members, was randomly assigned to one of three curriculum development tasks. In the course of a three-hour period, each group was given an orientation to the task, time to brainstorm, and the remainder of the time devoted to the task solution.

Instruments

Two types of data collecting instruments were employed: the Curriculum Guide Form (CGF) and Bales' Interaction Process Analysis (IPA) observational technique for recording group behavior.

Curriculum Guide Form (CGF). The portion of a curriculum developed by each group was structured through the use of the CGF for recording the group's decisions. (See Figure 1.) By so structuring the tasks, the solutions were in measurable form, facilitating evaluation.

The Rating Scale for Curriculum Evaluation (RSCE) (3) was used to quantify the groups' CGF. The RSCE consisted of twelve items measuring the six areas covered in the CGF. Utilizing the Hoyt estimate of test reliability, an r = .875 was obtained for the RSCE. Three raters scored each Curriculum Guide Form using the rating scale. Inter-rater coefficient of agreement (W = .824) was significant at the 1% level of confidence.

Bales' Interaction Process Analysis (IPA). The IPA is predicated on a structural view of small group behavior. A group functions only as it is task and group maintenance oriented. (4) The related behavior can be observed as units or acts of an instrumental, expressive, or adaptive nature. Through these three aspects of behavior, the group is maintained, the task headed toward solution, and when in equilibrium, the group proceeds satisfactorily.

A set of 12 categories identify the units of all possible interaction acts. Figure 2 illustrates the categories. Through these 12 categories, a number of dimensions emerge, related to group behavior, that can be analyzed.

Subject _____ Committee No. _____

Topic _____ Upper Elementary

GOAL DIRECTIVES	ORGANIZATION SCOPE, SEQUENCE	COGNITIVE BEHAVIORAL OUTCOMES	PSYCHO-MOTOR BEHAVIORAL OUTCOMES	AFFECTIVE OUTCOMES	ACTIVITIES ENHANCING OUTCOMES

Figure 1. Curriculum Guide Form

1. SHOWS SOLIDARITY: raises other's status, gives help, reward				
2. SHOWS TENSION RELEASE: jokes, laughs, shows satisfaction				
3. AGREES: shows passive acceptance, understands, concurs				
4. GIVES SUGGESTIONS: direction, implying autonomy, for others				
5. GIVES OPINION: evaluation, analysis, expresses feeling, wish				
6. GIVES ORIENTATION: information, repeats, clarifies, confirms				
7. ASKS FOR ORIENTATION: information, repetition, confirmation				
8. ASKS FOR OPINION: evaluation, analysis, expressing feeling				
9. ASKS FOR SUGGESTIONS: direction, possible ways of action				
10. DISAGREES: shows passive rejection, formality, withholds				
11. SHOWS TENSION: asks for help, withdraws out of field				
12. SHOWS ANTAGONISM: deflates other's status, defends self				
	5%	10%	15%	20%	25%

Figure 2. Categories of IPA

Dimensions	Categories
Group Maintenance Behavior	1,2,3,10,11,12
Social-Emotional Positive	1,2,3,
Social-Emotional Negative	10,11,12
Reintegration Behavior	1 and 12
Tension Reduction Behavior	2 and 11
Decision Making Behavior	3 and 10
Task Behavior	4,5,6,7,8,9
Orientation Behavior	6 and 7
Evaluation Behavior	5 and 8
Control Behavior	4 and 9

Collecting IPA Data

Collection of the interaction behavior data consisted of recording notations of the participants' interaction as defined by the 12 categories in Bales' analysis of small group interaction. The discussion was also being taped for later playback. The observer-recorder sat nearby leaving just enough space to provide a physical distinction between himself and the group. The group members were told of the nature of the observer's activities. For the most part, there was little or no interaction between the group and the observer. A single observer-recorder was used throughout the entire experiment.

The interaction notations were later compiled into frequency tallies by category for each group. Playback of randomly selected tapes replicated the initial tabulations. Scott's formula (5) for determining a stability coefficient was used. A stability coefficient of .812 was obtained, well above the minimum coefficient set by Bales. (6)

Results and Analysis of Data

Raw scores for each of the 30 curriculum were obtained from the evaluation of the Curriculum Guide Forms. Four interaction behavior variables

or dimensions (combinations of various behavior categories) were selected for examination:

1. Social-Emotional Positive Behavior
   Categories: 1,2,3

2. Social-Emotional Negative Behavior
   Categories: 10,11;12

3. Task Oriented Behavior
   Categories: 4,5,6,6,8,9

4. Decision Making Behavior
   Categories: 3 and 10

The ratio between the frequency tallies for each group on each of the variables and the total behavioral acts for each group were obtained. The data are shown in Table 1.

Inasmuch as the groups were not all assigned the same curriculum task, i.e., 10 groups were assigned a social studies task, 10 groups a mathematics task, and 10 groups science curriculum development problems, it was necessary to first determine if significant differences in behavioral interaction existed due to the nature of the tasks. Frequency tallies for the three categories (1,2,3) under Social-Emotional Positive Behavior variable were summed for each group. The grand sum was obtained by summing over the tallies for: (1) the 20 groups with social studies and mathematics tasks; (2) the 20 groups with social studies and science tasks; and (3) the 20 groups with science and mathematics tasks. The ratio between each committee's tallies for Social Emotional Positive acts and the grand sum of tallies between any two subjects were obtained. The same procedure was used for obtaining Social-Emotional Negative, Task Orientation and Decision Making frequency ratios.

Table 1.

Data on CGF Scores and on Interaction Variables

Group No.	Scores on CGF	GROUP MAINTENANCE			Task Oriented Behavior
		Soc-Emo. Positive	Soc-Emo. Negative	Decision Making	
1	59	.22	.07	.193	.71
2	58	.23	.05	.190	.72
3	63	.08	,06	.058	.86
4	61	.18	.06	.157	.76
5	46	.29	.05	.182	.65
6	48	.22	.03	.113	.75
7	44	.18	.03	.109	.78
8	39	.29	.06	.158	.65
9	39	.12	.06	.141	.82
10	51	.24	.04	.195	.72
11	59	.17	.06	.153	.77
12	52	.23	.08	.130	.70
13	52	.19	.08	.160	.74
14	55	.16	.07	.116	.76
15	46	.23	.03	.121	.74
16	46	.26	.08	.159	.66
17	43	.23	.04	.144	.73
18	41	.21	.14	.181	.65
19	44	.29	.03	.122	.69
20	52	.30	.05	.126	.64
21	56	.14	.07	.126	.79
22	55	.24	.03	.115	.74
23	40	.30	.06	.154	.63
24	39	.25	.10	.200	.65
25	44	.35	.07	.216	.58
26	46	.16	.05	.121	.79
27	44	.18	.16	.248	.66
28	43	.19	.13	.110	.68
29	46	.25	.10	.196	.65
30	43	.18	.14	.197	.67
$\bar{X}$	48.47	0.22	0.07	0.152	0.71

The obtained ratios were used as a basis for Chi Square tests of significance. The groups under each variable were dichotomized by distinguishing between those falling above and below the mean. Twelve 2 x 2 contingency tables were arranged. None of the computed Chi Squares, using correction for small numbers, was found significant at the 5% level of confidence. We could conclude that the group interaction behavior was not affected by the nature of the task.

Research in small group literature has pointed to the effects of biographical characteristics on the products produced by groups. Such factors as age, education, sex, status, and experience have been studied. (7) In the reported study, the composition of the 30 groups was analyzed to determine if these characteristics might have had differential effects on the verbal interaction behavior. It was found that these biographical characteristics were randomly distributed among the groups.

To determine whether the group interaction behavior on the four selected behavioral variables was related to the quality of the product produced, i.e., the raw scores on the CGF, product-moment correlation coefficients were computed. Table 2 shows the results.

Table 2

Product-Moment Correlation Coefficients Based on CGF Scores and Interaction Variables

Independent Variable → / ← Dependent Variable		df	r	Probability Level
Raw Scores on CGF	Soc-Emotional (+) Category: 1,2,3	28	-.374	$.01 < p < .05$
Raw Scores on CGF	Soc-Emotional (-) Category: 10,11,12	28	-.264	$p > .05$
Raw Scores on CGF	Decision Making Category: 3 and 10	28	-.256	$p > .05$
Raw Scores on CGF	Task Orientation Category: 4 - 9	28	+.503	$p < .01$
Soc-Emo. (+)	Task Orientation	28	-.835	$p < .01$
Soc-Emo. (-)	Task Orientation	28	-.222	$p > .05$

As indicated in Table 2, there is a significant positive correlation between task orientation behavior ($p < .01$) and the raw scores assigned the group products. Those groups who were task oriented (giving and asking for suggestions, giving and asking for opinions, and giving and asking for information) scored higher on their task product than those groups not engaging in task oriented bahavior with as great a frequency. Social-Emotional Negative behavior and Decision Making behavior were not significantly correlated with the raw scores on the group product. The Social-Emotional Positive variable was negatively correlated with scores at the 5% level of confidence. This is in keeping with other findings in small group literature. (8) Where groups

are overly agreeable and have a high level of solidarity, there is a tendency for the task solution to suffer. A certain amount of disagreement or tension is needed to keep the group challenged and aware of new ideas. But, where the level of disagreement becomes too great, and an equilibrium is not maintained through Social-Emotional Positive acts, the total group structure would be disrupted.

The data indicated that the more the groups showed a positive social-emotional climate, the lower the scores on the product solution. These findings were confirmed by the correlation coefficient obtained between Social-Emotional Positive behavior and the Task Oriented behavior. There was a significant negative correlation ($p < .01$) between Social-Emotional Positive acts and Task Oriented acts.

Implications

The results indicated that curriculum development committees emphasizing task oriented verbal behavior over group maintenance behavior, whether positive or negative, scored higher on their curriculum products. Groups that were concerned with Social-Emotional Positive behavior, such as showing solidarity, releasing tension and agreeing, did so at the expense of Task Oriented behavior. This in turn was reflected in significantly lower raw scores on the curriculum product.

Although it would be difficult to generalize from these findings beyond the type of subjects comprising the ad hoc curriculum development groups, certain implications are worth considering as concerned community persons become involved in curriculum decision making acitivites. Curriculum groups should be made aware of the nature of task oriented behavior:

1. Groups need to be made aware and understanding of the types of behavioral acts that assist the group in obtaining information which the groups can use. Knowing how to ask for confirmation and information and learning how to give these are important aspects of orientation.

2. Groups need to be made aware and understanding of evaluation behavior, i.e., asking for and giving opinion. Members need to know how to accept feelings and opinions and learn how to give their opinions and make their feelings known to the group.

3. Groups need to be made aware and understanding of group control behavior, i.e., asking for and giving suggestions. Group members need to know how to ask for direction, to request alternative courses of action as well as give direction and alternatives for the group to consider.

4. The groups needs to learn how to pursue an issue without causing undo group tension. Where given opinions and suggestions are too readily received by the group without some show of rejection, when another's idea comes in conflict with one already expressed, new ideas are too easily lost. Groups therefore need to learn how to receive rejection and turn it into a task oriented act.

It is suggested that future studies consider the effects of small group interaction training emphasizing task oriented behavior on subsequent group products. As all members of the group, whether professional or lay community members, can focus on the task, the group product may become the cohesive force between the schools and the community.

Footnotes

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